

Title (en)
ONLINE PLANT OPTIMIZER FOR OPERATING, PERFORMANCE RATING, ENERGY ND COST OPTIMIZATION AND DESIGN OF A PROCESS PLANT AND INTEGRATION WITH A SMART PLANT THREE-DIMENSIONAL PIPING MODEL

Title (de)
ONLINE-ANLAGENOPTIMIERER ZUM BETRIEB, ZUR LEISTUNGSBEWERTUNG, ZUR ENERGIE- UND KOSTENOPTIMIERUNG UND ZUM DESIGN EINER PROZESSANLAGE UND INTEGRATION MIT EINEM DREIDIMENSIONALEN ROHRLEITUNGSMODELL EINER INTELLIGENTEN ANLAGE

Title (fr)
OPTIMISEUR D'INSTALLATION EN LIGNE POUR LE FONCTIONNEMENT, L'ÉVALUATION DE PERFORMANCES, L'OPTIMISATION D#ÉNERGIE ET DE COÛT ET LA CONCEPTION D'UNE INSTALLATION DE PROCÉDÉS ET L#INTÉGRATION DANS UN MODÈLE DE CANALISATIONS TRIDIMENSIONNEL D'INSTALLATION INTELLIGENTE

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Application
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Priority
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Abstract (en)
The present invention relates to a method for operating a process engineering plant, wherein at least one component monitoring module (102, 103, 104, 105, 106, 107) monitors a specific component of the process engineering plant, wherein an efficiency of the specific component is evaluated in dependence of current data characterising a current operation of the specific component and in dependence of design data characterising a design operation of the specific component, wherein at least one optimising module (108, 109, 110, 111) determines an optimum energy consumption and optimum process parameters for operating the process engineering plant in dependence of a result of the evaluation performed by the at least one component monitoring module (102, 103, 104, 105, 106, 107), and wherein a virtual simulation (117) of the process engineering plant is performed, wherein a theoretical model of the process engineering plant is operated in dependence of the result of the evaluation performed by the at least one component monitoring module (102, 103, 104, 105, 106, 107) and in dependence of the optimum energy consumption and the optimum process parameters determined by the at least one optimising module (108, 109, 110, 111).

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Citation (search report)
• [X] EP 3260934 A2 20171227 - GEN ELECTRIC [US]
• [A] US 2010274745 A1 20101028 - SEO IN YONG [KR], et al

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JP2023090608A; CN117539169A; CN117808263A; WO2023140281A1

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